PULSE PRESS

DYNAMIC COMPRESSION THERAPY

LYMPH 12 PRO USER MANUAL

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SAFETY INSTRUCTIONS

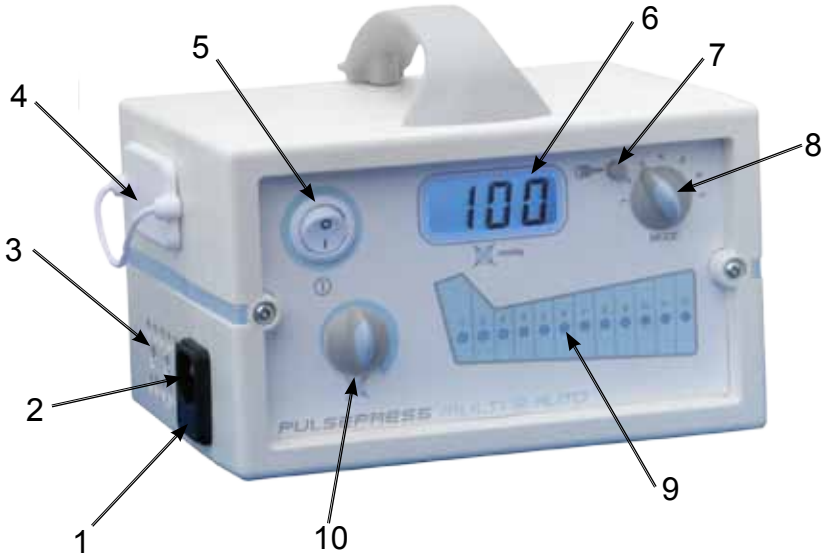
Read all of these instructions and save them for later reference. Follow all warnings and instructions marked on the devices.

- These units must only be operated by qualified medical staff. Operation of these units by any other person is entirely the responsibility of that person.
- This manual must be read and fully understood before these units are applied to patients.
- Equipment not suitable for use in the presence of Flammable Anesthic mixture with air or with oxygen or nitrous oxide.
- Unplug the pumps before cleaning. Only ever use a damp cloth. Do not spill liquid onto the pump enclosure.
- Always place pumps on a flat, stable surface before operation. The pumps will not operate properly if tilted or at an angle.
- Do not cover the pumps whilst in operation.
- Use only the type of power source indicated on the pump's rear label.
- Do not use a damaged or frayed power cord.
- Unplug the pumps and refer servicing to qualified personnel under the following conditions:-
    - If the power cord or plug is damaged.
    - If liquid has entered the pumps.
    - If the plastic outer enclosure is damaged.
    - If the pump is not operating normally, continuous running, noisy running or low performance.
- Always switch off the pump before unzipping the garments.

ELECTROMAGNETIC INTERFERENCE

This equipment has been constructed and tested to comply with EN60601-1-2 (EMC regulations for Medical devices). This test was designed to provide reasonable protection against harmful interference. This equipment may generate and radiate radio frequency energy and, if not installed correctly may cause interference to radio communications. If this equipment does cause interference then the user is encouraged to try to correct the interference by one or more of the following measures:-

- Re-orientate or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the manufacturer of the device.



PUMP CONTROLS

1. External fuse holder. Replace with 500mA Slo-Blo
2. Power Inlet. Use with 220-240v AC 50 Hz
3. Air outlet for use with single garment.
4. Air bung. Remove for inflating two garments at a time or trousers
5. Power Switch.
6. Pressure Gauge. Shows treatment pressure setting.
7. Start button. Push to start treatment.
8. Mode Selector. Used to select different treatment protocols
9. Inflation cycle indicator. Shows which chambers are inflated.
10. Pressure selection control. 30 to 100 mmHg adjustment.

MODE SELECTION EXPLANATION

Mode 1 Fast Sequential (x1 Arm or x1 Legging)
Mode 2 Slow Sequential (x2 arms, x2 Leggings or x1 Lymph Legging
Mode 3 Pre-Drainage (15 mins) then Slow Sequential
Mode 4 Fast Peristaltic (x1 Arm or x1 Legging)
Mode 5 Slow Peristaltic (x2 arms, x2 Leggings or x1 Lymph Legging
Mode 6 Pre-Drainage (15 mins) then Slow Peristaltic
Mode 7 Pre-Drainage only

Gradient Sequential Mode

The garment is inflated fully in a distal to proximal manner. Once fully inflated the entire garment is deflated before the cycle repeats. This method offers greatest level of limb drainage.

Peristaltic Mode

This Mode offers a gentle wave of inflation, working in a traditional Distal to Proximal manner. This method in lymph drainage is preferred by some patients as it offers greater comfort than sequential inflation. It should be noted that the overall effectiveness of reducing the limb size is lower.

Pre-Drainage Mode

This mode has been designed to copy the methods used Manual Lymph Drainage (MLD) to open the lymph nodes. Once the nodes have been opened, it allows easier drainage of excessive lymph.

Combination Therapy

The lymph 12 Pro has two modes which automatically combine the Pre-Drainage mode and the Peristaltic or Sequential. The benefit is that during a single treatment the limb is initially prepared by opening the lymph nodes and then automatically switches into the chosen lymph drainage mode.

PUMP
Before cleaning the pump unit, always ensure it has been disconnected from the mains power supply. Clean the unit with a light detergent, ensuring that only a damp, and not wet, cloth is used. If in doubt as to the action of the detergent, try cleaning the underside of the unit first, where damage will be unseen.

There are no service items which need replacing or cleaning out on a regular basis. All technical information can be found at **'www.mjsgrp.com'** .

GARMENT
The garments can be sponged with a detergent. Allow to dry fully before use. DO NOT FORCE DRY.
In the event of heavy soiling the garments can be machine washed. See wash label. Always insert the air entry blanking plug, to prevent water ingress, and turn the garment inside out prior to machine washing.

INDICATIONS AND CONTRA-INDICATIONS

INDICATIONS

VENOUS	Post phlebetic syndrome, varicose veins, varicosities of pregnancy, stasis dermatitis, leg ulcers.
WOUND RECOVERY	Venous ligation or stripping, hand surgery, total knee replacement.
D.V.T.	For prevention of deep vein thrombosis.
ARTERIAL	Raynaud's disease, arteriosclerosis, acro cyanosis, blue leg.
EDEMA	Gravitational, lymphatic, post mastectomy, inguinal lymphadenectomy, after cast removal, rheumatoid, multiple sclerosis.
FLEXION CONTRACTURES	Chronic, injury, burns and skin graft.

CONTRA-INDICATIONS
Acute thrombophlebitis, acute pulmonary edema, congestive heart failure, known or suspected deep vein thrombosis.

TECHNICAL SPECIFICATIONS

Power Source	220-250V AC
Frequency	50Hz
Internal Fuse	T500mA
	Type BF
Caution	Equipment not suitable for use in the presence of Flammable Anesthic mixture with air or oxygen or nitrous oxide. Read instructions prior to using equipment.
Water Resistance	Ordinary Equipment
Mode	Intermittent Operation
Storage / Operation	Equipment to be stored / used between 15 and 30 degrees C Equipment suitable for use 0-50% humidity.
Pressure Regulation	Range 30 - 60 / 100mmHg ±5mmHg
Pressure Meter	LCD Display. Range 0-150mmHg ±5mmHg
Power Consumption	25W
	Class II (Double Insulated Device)

OPERATING INSTRUCTIONS

WARNING: These units must only be operated by qualified medical staff. Operation of these units by any other person is entirely the responsibility of that person.

WARNING: This manual must be read and fully understood before these units are applied to patients.

WARNING: Refer to section on indications and contra-indications prior to the unit being applied to patients.

Application to Patient

These units are designed to provide compression to the Pulse Press range of Solo and Multi pressure garments. Each unit can be connected to one or two garments simultaneously. If only one garment is being used then the other outlet is sealed.
For the Multi pumps the blanking plug must be removed to use a second garment. The hoses connection is unable to be the wrong way round. The other end of the air feed hose simply pushes onto the garment.
For the Solo pumps the hose latches into the outlet with a push and twist action. The other end of the air feed hose pushes into the garment inlet elbow.

Operational Use

1. Connect the mains lead to the IEC power inlet socket. Insert the mains plug of the lead into a standard 220-240 V mains socket.
2. Fit the air feed hose(s) to the air outlets, as described above. Ensure that all connections to the pump and garment make a good seal.
3. Place / fit the garment(s) onto the limb(s) requiring treatment.
4. Turn the unit on. A visual mains indicator will illuminate.
5. Select the required pressure using the pressure control.
6. Select the desired treatment protocol by the mode selector.
7. Note the time the treatment starts so that the unit can be switched off when the desired time has elapsed.
8. DO NOT unzip the garment when the unit is switched on. This may cause damage to the garment. Always turn off the power before unzipping the garment.
9. Extra comfort can be obtained by first placing a Pulse Press Garment Liner on the limb under the pressure garment.

TECHNICAL SPECS

Compressor	20 Litres per Minutes	Pressure	20-100 mmHg
Power	220-240v AC 50Hz	Dimensions	200mm x 160mm x 160mm
Weight	3.1Kg	Treatments	Peristattic, Sequential, Pre-drainage
Remote	30min, 60min, Continuous + Start / Stop		

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